# Donetsk National Technical University





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| Title: | Implementation of Wi-Fi based location tracking system based on signal strength measurement and artificial neural network |
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| Issue Date: | 12-Apr-2011 |
| Publisher: | ДонНТУ |
| Series/Report no.: | Том Первый;Информационные управляющие системы и технологии |
| Abstract: | Radio frequency signals are present everywhere and almost at any time, from GSM mobile phones to wireless devices. Wi-Fi enabled devices can be located within the area of deployment. A location system that takes advantage of the availability of these signals and the received signal strength indicator (RSSI) measured by these mobile devices was developed using Wireless Fidelity (Wi-Fi) as access points (APs). The concept of Artificial Neural Network (ANN) was applied to the location system for computation of location coordinates. This allows for tolerance and generalization of results. Location information of target devices was made available via a web interface. The user had the option of selecting registered device in a location database server using Media Access Control (MAC) address of their tag and the computed location is displayed on a floor plan of the building. |
| URI: | http://ea.donntu.edu.ua/handle/123456789/11225 |
| Appears in Collections: | Конференція ІУС та КМ - 2011 |

Files in This Item:

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| John S.N. Ibikunle F.A., Adewale A.A, Owokade A.l, Ajah J.O.pdf | | 672,31 kB | Adobe PDF |